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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/646,828

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Yoshihiro Masuda

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09/18/2007

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ALEXANDRIA, VA 22320

EXAMINER

TRAN, TUYETLIEN T

ART UNIT

PAPER NUMBER

2179

MAIL DATE

DELIVERY MODE

09/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/646,828

Applicant(s)

MASUDA, YOSHIHIRO

Examiner

TuyetLien (Lien) T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

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DETAILED ACTION

1. This action is responsive to the following communication: Amendment filed 6/22/07.

This action is made non-final.

2. Claims 1-21 are pending in the case. Claims 1, 2, 11 and 13-21 are independent claims.
3. Applicant is advised that a new examiner has been assigned to the case.

Continued Examination Under 37 CFR 1.114

4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/22/07 has been entered.

Claim Rejections - 35 USC § 112

5. Applicant's arguments with regard to the previous rejections are persuasive; therefore, the previous rejections are withdrawn.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toomey et al (Patent Number 6119147; hereinafter Toomey) in view of Boulanger et al (Patent No 6583808 B2; hereinafter Boulanger).**

As to claims 1, 2, 13, 14, 16, 17, Toomey teaches:

A work space control apparatus for controlling activities conducted by objects in a work space as history (e.g., see col. 5 lines 11-23), the apparatus comprising:

a detection device that detects an activity event conducted by each object in the work space (e.g., see Fig. 3 and col. 6 lines 37-45);

an activity event control device that saves the activity event detected while relating the activity event detected to time for each object during which each object conducts the detected activity event (e.g., see Fig. 7, col. 6 lines 5-21 and lines 55-65); and

a display device that displays the saved activity event by displaying the respective object conducting the saved activity event or a display device that displays the plural saved activity events of one object by tracing other objects, which conducted the plural saved activity events of the one object, with reference to the plural saved activity events of the one object and by displaying the one object and the other objects, objects (e.g., see Figs. 9-11);

Toomey does not expressly teach non-simulated real space and that the objects in the work space include a person in the at least one non-simulated real space. However, it would have been obvious to one skilled in the art at the time the invention was made to realize that the participants participating in the virtual meeting are persons interacting with each other through the user interface (e.g., see col. 5 lines 33-55 and Fig. 2).

In addition, Boulanger teaches a method and system for stereo videoconferencing that provides a realistic immersive three-dimensional environment for participants wherein stereo pairs of video images of each participant are transmitted to each of the other participants (e.g., see col. 2 lines 6-20). Boulanger further teaches that the activity event is conducted by objects in a work space including at least one non-simulated real space and that the objects in the work space include a person in the at least one non-simulated real space (e.g., note that participant

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102 is real person facing the video cameras 206, 208, 210, 212 as shown in Fig. 2 and col. 3 lines 18-32 and lines 59-67; and further note that the participants can be physically separated from each other; the physical space that all participants make up is non-simulated real space).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the feature of stereo videoconferencing as taught by Boulanger to the work space control apparatus as taught by Toomey to achieve the claimed invention. The motivation for the combination is to permit meeting participants to interact with each other in a realistic way, while avoiding the computationally intensive process of computing participant's images using 3D models (e.g., see Boulanger col. 2 lines 1-4).

As to claims 11, 15, 18, 20, Toomey teaches:

A work space control system for controlling activities conducted by objects in each work space as history (e.g., see col. 5 lines 11-23), the system comprising:

a detection device that detects an activity event conducted by the object in each work space (e.g., see Fig. 3 and col. 6 lines 37-45);

a work space history saving device that saves the detected activity event for each work space of the activity event (e.g., see Fig. 7, col. 6 lines 5-21 and lines 55-65, col. 2 lines 12-24);

an object history saving device that saves the activity event for each object of the activity event responding to that the activity event is detected so that other objects can refer to the saved activity event (e.g., see Fig. 7, col. 6 lines 5-21 and lines 55-65, col. 2 lines 12-24); and

a display device that displays the plural saved activity events of one object by tracing other objects, which conducted the plural saved activity events of the one object, with reference to the plural saved activity events of the one object and by displaying the one object and the other-objects, objects (e.g., see Figs. 9-11);

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Toomey does not expressly teach non-simulated real space and that the objects in the work space include a person in the at least one non-simulated real space. However, it would have been obvious to one skilled in the art at the time the invention was made to combine the teaching of Toomey and Boulanger to achieve the claimed invention for the same reasons as discussed with respect to claim 1 above.

As to claims 19 and 21, Toomey teaches:

A method of controlling activities conducted by objects in a work space as history (e.g., see col. 5 lines 11-23), the method comprising:

detecting an activity event conducted by each object in the work space (e.g., see Fig. 3 and col. 6 lines 37-45);

saving the detected activity event while relating the detected activity event to time for each object during which each object conducts the detected activity event (e.g., see Fig. 7, col. 6 lines 5-21 and lines 55-65, col. 2 lines 12-24, col. 5 lines 61-67 through col. 6 lines 1-4 and lines 55-58); and

displaying the saved activity event by displaying respective object conducting the saved activity event (e.g., see Figs. 9-11);

Toomey does not expressly teach non-simulated real space and that the objects in the work space include a person in the at least one non-simulated real space. However, it would have been obvious to one skilled in the art at the time the invention was made to realize that the participants participating in the virtual meeting are persons interacting with each other through the user interface (e.g., see col. 5 lines 33-55 and Fig. 2).

In addition, Boulanger teaches a method and system for stereo videoconferencing that provides a realistic immersive three-dimensional environment for participants wherein stereo pairs of video images of each participant are transmitted to each of the other participants (e.g.,

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see col. 2 lines 6-20). Boulanger further teaches that the activity event is conducted by objects in a work space including at least one non-simulated real space and that the objects in the work space include a person in the at least one non-simulated real space (e.g., note that participant 102 is real person facing the video cameras 206, 208, 210, 212 as shown in Fig. 2 and col. 3 lines 18-32 and lines 59-67; and further note that the participants can be physically separated from each other; the physical space that all participants make up is non-simulated real space); Boulanger additionally teaches a position for each object where each object conducts the detected activity event (e.g., see Fig. 5).

Accordingly, it would have been obvious to one skilled in the art at the time the invention was made to combine the teaching of Toomey and Boulanger to achieve the claimed invention for the same reasons as discussed with respect to claim 1 above.

As to claim 3, Boulanger further teaches actual body acquiring means for acquiring actual body information of the object of the activity according to the activity event saved by the activity event control means (e.g., cameras 206, 208, 210, 212 as shown in Fig. 2). Thus, combining Toomey and Boulanger would meet the claimed limitations for the same reasons as discussed with respect to claim 1 above.

As to claim 4, Toomey further teaches wherein the activity event control means saves the detected activity event while the detected activity event can be referred from the other object for each object of the activity event being accompanied by the information of the activity time, and the activity event display means displays a plurality of the saved activity events in a time series (e.g., see Fig. 7, col. 6 lines 5-21 and lines 55-65, col. 2 lines 12-24).

As to claims 5 and 12, Boulanger further teaches wherein the activity event display means displays an activity event by displaying objects arranged in a positional relation based on

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the degree of relation between the objects (e.g., see Fig. 1 and col. 4 lines 27-38). Thus, combining Toomey and Boulanger would meet the claimed limitations for the same reasons as discussed with respect to claim 1 above.

As to claim 6, Toomey further teaches a capture input means for capturing data of the activity conducted in the work space (e.g., see col. 6 lines 38-54), wherein the activity event control means controls the captured data corresponding to the activity event so as to supply captured data as a display output corresponding to the activity event (e.g., see Figs. 9-11). Boulanger further teaches a capture input means for photographing captured data of the activity conducted in the work space (e.g., see Fig. 2). Thus, combining Toomey and Boulanger would meet the claimed limitations for the same reasons as discussed with respect to claim 1 above.

As to claim 7, Toomey further teaches wherein the detection device detects a change in a set of the user objects in the activity event, and the activity event control device saves an activity as a different activity event each time the change is detected (e.g., see col. 6 lines 17-21, col. 6 lines 44-48).

As to claim 8, Boulanger further teaches wherein the detection means detects a change in a set of the user objects in the activity event, and the activity event control means saves an activity as a different activity event each time the change is detected (e.g., see Fig. 2). Thus, combining Toomey and Boulanger would meet the claimed limitations for the same reasons as discussed with respect to claim 1 above.

As to claim 9, Toomey further teaches warning means for outputting a warning to a user when a predetermined state is detected by the detection means (e.g., see col. 15 lines 35-41).

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As to claim 10, Toomey further teaches wherein the object includes a document used in the work space (e.g., see col. 5 lines 25-30 and Figs. 1, 2).

Response to Arguments

8. Applicant's arguments with respect to claims 1-21 have been considered but are moot in new ground of rejection.

Conclusion

The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action.

It is noted that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In re Heck, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TuyetLien (Lien) T. Tran whose telephone number is 571-270-1033. The examiner can normally be reached on Mon-Friday: 7:30 - 5:00, off on alternating Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 571-272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

T.T
9/14/2007

Lien Tran
Examiner
Art Unit 2179

BA HUYNH
PRIMARY EXAMINER